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PROJECT NO. 51830

**REVIEW OF CERTAIN RETAIL
PUBLIC UTILITY COMMISSION
ELECTRIC CUSTOMER
PROTECTION RULES**

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**PUBLIC UTILITY COMMISSION
OF TEXAS**

COMMENTS OF ROBERT L. BORLICK

COMES NOW Robert L. Borlick, Senior Energy Advisor with Borlick Energy Consultancy, who submits comments in response to the Commission's request dated June 25, 2021, re: *Review of Certain Public Utility Commission Electric Customer Protection Rules*.

ABOUT THE AUTHOR

Robert L. Borlick is an energy consultant with more than 40 years of experience related to the electric power industry. He previously held partner-level positions in two international consulting firms: Putnam, Hayes & Bartlett, Inc, and Hagler, Bailly, Inc. He also served as a Senior Advisor with the Brattle Group. From 2005 through 2013 he assisted the Midwest Independent System Operator in developing its energy-only market and its demand response programs, including the preparation of MISO's filings in the FERC dockets that gave rise to Orders 719 and 745. From 1989 through 1998 he assisted the governments of Great Britain, Singapore, India, Australia, New Zealand, and Canada, with the development of their competitive electricity markets.

EXECUTIVE SUMMARY

- Residential and small commercial customer demand response represents a large, untapped resource for increasing the reliability of the ERCOT electric power system. In addition, it provides these customers with the means to control their electric bills and also suppressing the market power of the large electric generators.
- A plain language interpretation of House Bill 16, severely limits development of demand response products that small customers can provide within the ERCOT footprint. However, case law informs us that plain language interpretations are frequently modified by judicial reinterpretations.
- The Commission should more broadly interpret House Bill 16 to mean that it prohibits the offering of wholesale indexed products that expose an unacceptably large portion of a small

customer's load to wholesale market prices.

- The large electric generators would almost certainly challenge a broader interpretation of House Bill 16 because it would threaten their ability to exercise market power and extract excessive rents from all retail customers.
- Although the Commission lacks authority to regulate generator offer prices, beyond the imposition of the high and low energy market caps, it is authorized to implement rules that improve the economic efficiency of the ERCOT market, including removing barriers to demand response development. The impact this would have on generator offer prices is an indirect, collateral result..
- Lastly, House Bill 16 does not totally preclude development of small customer demand response; however, the alternative solution is less desirable as it relies on the application of individual customer consumption baselines, which are less effective and less efficient, as I described in my comments filed in Project 52373.

INTRODUCTION

In the wake of Winter Storm Uri, Texas State representative, Jared Patterson, tweeted:

“...wouldn’t a true free market allow homeowners to provide power to the grid...? What if homeowners were getting thousands of dollars in revenue instead of just a bill?”

In 2011 ERCOT experienced a rolling blackout. At that time it was observed that residential and small commercial customers contributed approximately 70 percent of the ERCOT summer peak demand.¹ This statistic is still roughly valid today; small customers account for about 50 GW of ERCOT's summer peak load.

Based on experiences in other regions of the US, aggressive marketing can achieve 20 percent small customer participation in price responsive demand (PRD) programs. Exposing these customers to ten-fold price increases typically produces demand reductions of about 25 to 40 percent, depending on whether enabling technologies are used to automate customers’ responses.² However, when ERCOT declares an Energy Emergency Alert (EEA) the market price escalates to \$9,000 per MWh,

¹ The Brattle Group, “ERCOT Investment Incentives and Resource Adequacy,” Report prepared for ERCOT, June 1, 2012, p. 92.

² Ahmad Faruqui and Stephen George, "Quantifying Customer Response to Dynamic Pricing," *The Electricity Journal* 18(4), May 2005, pp., 53-63.

Faruqui, Ahmad, Sanem Sergici, and Cody Warner. . “Arcturus 2.0: A meta-analysis of time-varying rates for electricity.” *The Electricity Journal* 30(10), December 2017, pp. 64-72.

which represents about *a hundred-fold* price increase! While there is scant data describing how small customers respond to such high prices, it is not unreasonable to expect the aggregate demand reduction to reach at least 50 percent.³ This implies that small customer PRD can produce at least 5 GW of load reduction – equivalent to the capacity of the two nuclear plants within ERCOT!

Small customer PRD would increase the reliability of the ERCOT power system by slowing the depletion of operating reserves during supply shortages. In effect, the PRD load reductions would provide the equivalent of additional operating reserve. This activity would also reduce wholesale market price volatility, which would provide unhedged supply capacity with more stable energy sales revenues, thereby facilitating long-term contracting and the entry of new supply resources.

Lastly, small customer PRD would force large generators to increase the capacity they must withhold from the market in order to achieve a desired market price increase while concomitantly increasing their lost opportunity cost from not operating the withheld capacity.

HB 16 PROHIBITS EXPOSURE TO WHOLESALE INDEXED PRODUCTS

The straightforward way to implement demand response is to expose some, or all, retail customers' loads to prices indexed to the day-ahead or real-time wholesale market prices. In fact, this is what the now defunct Griddy product did. The fatal flaw in Griddy's product is that it required customers to *expose their total loads* to the volatile wholesale market prices.⁴

During Winter Storm URI ERCOT market prices remained at the VOLL-based cap for several days, producing draconian electric bills for many Griddy customers, resulting in their defaulting on bill payments.⁵ Texas legislators reacted in knee-jerk fashion by enacting House Bill 16 (HB 16), which prohibits the sale of Griddy-type products to residential and small commercial customers. While legislative action was appropriate, a more appropriate response would have been to allow REPs to only offer small customers hedged products that limit the fraction of their loads exposed to the indexed

³ Analyzing the smart meter data of former Griddy customers' responses the \$9 per kWh price they faced during Winter Storm URI could provide valuable insights into how small customers respond to huge electricity price increases. However, they would not be representative of customer behavior in the summer season.

⁴ It has been rumored that Griddy was developing a hedged product that would have limited the share of the customer's load that would be exposed to the indexed prices.

⁵ Griddy customers should not be exempted from paying their bills. They voluntarily entered into those Griddy contracts. When wholesale market prices were low they reaped substantial savings. Furthermore, many are sophisticated, affluent customers that can afford to pay. The only customers that should be exempted from payment are those that can demonstrate severe economic hardship.

prices, perhaps based on each customer's income level (as a proxy for the ability to pay). It is important to understand that the HB 16 prohibition denies small customers the right to manage their financial risk and to limit their ability to reduce their electricity bills.

OPUC comments supporting the HB 16 prohibition are equally misguided and reflect a demeaning, overly protective view of electricity customers. These customers are not helpless children. OPUC efforts would be better spent focusing more narrowly on how to limit the adverse impacts on low-income customers.

INTERPRETING HB 16 TO ALLOW HEDGED PRODUCTS

Allowing small customers to choose from a variety of hedged products offered by REPs would allow the customers to manage their exposure to high prices while also allowing them to benefit from buying cheap electricity when wholesale market prices are not elevated (which is most of the time).

One particularly intriguing product (that the Southern Company has offered for many years) is allowing the customer to "buy its baseline." Under this arrangement the supplier sells the customer an amount of energy in a pre-specified hourly profile at a fixed price. *Ex post* consumption deviations from the baseline profile are settled *ex post* at the actual hourly wholesale market prices. Using a customer's historical hourly usage data a REP can develop a fixed price offer that allows it to fully hedge that customer's baseline consumption. The REP would then accommodate the customer's deviations from baseline through spot market energy purchases and sales.

To make possible the sale of hedged products the Commission should interpret the legislative intent of HB 16 as prohibiting the sale of products that expose *an unacceptably large portion* of a small customer's load to wholesale market prices. "Unacceptably large" can be defined as a function of the customer's annual income and can range from zero (for low-income customers) up to fifty percent of the customer's load.⁶ Although this conflicts with a plain language reading of HB 16, case law informs us that courts frequently adopt interpretations deviating from plain language interpretations.

If the Commission adopts the aforementioned interpretation of HB 16 it should expect judicial review initiated by the large generators. By facilitating the development of small customer demand response

⁶ Restricting exposure to no more than 50 percent of the customer load would have little effect on economic efficiency because empirical data indicates that even when exposed to very high prices residential customers will generally not reduce their usage by much more than one-half for an extended time.

the Commission will further restrict the ability of generators to exercise market power electric and extract excessive rents from all retail customers.

The Commission lacks authority to regulate the offer prices of electric generators beyond the limits placed by the High and Low energy market price caps. However, it is authorized to implement rules that improve the economic efficiency of the ERCOT market. Removing barriers to demand response development falls within its purview. The impact this would have on generator offer prices is an indirect, collateral result.

HB 16 DOES NOT ENTIRELY PROHIBIT SMALL CUSTOMER DEMAND RESPONSE

As described in my comments submitted in Project 52373, HB 16 does not prohibit demand response derived from customers selling load reductions to their REPs; however, this demand response product is not as efficient, nor as easily administered, as products that expose the customer to prices indexed to wholesale market. This is because the former product requires use of a consumption baseline to estimate how much energy the customer would have consumed absent the increase in the wholesale market price. Consumption baselines have several disadvantages.

Firstly, because consumption baselines are created from the customer's historical consumption, they cannot immediately capture the effects of non-price causal factors that change over time. Thus, a customer may be over- or under-compensated for responding to price signals.

Secondly, a conniving customer may be able to manipulate its baseline in order to obtain payment for nonexistent load reductions. This can be done by artificially increasing usage when prices are low to inflate the credits received when prices are high.

The bottom line is that when consumption baselines are applied there will always be instances when a customer is credited for load reductions that would have occurred in the absence of the demand reduction incentive payment or is not credited for legitimate load reductions.

SUMMARY

Residential and small commercial customers providing price responsive demand can effectively provide substantial reserves to ERCOT during hours when supply is scarce, thereby contributing to power system reliability. The most efficient way to bring this about is to expose some of the

customers' loads to the ERCOT wholesale market prices. Each customer's risk can be managed by limiting the amount of exposed load and REPs are capable of developing hedged products that accomplish this. But for this to happen the language of HB 16 must be reinterpreted to allow limited exposure to wholesale market price risk. The Public Utility Commission of Texas can initiate such a reinterpretation.

I appreciate the opportunity to provide these comments and look forward to working with the Commission to develop and implement small customer demand response in Texas..

Respectfully submitted,

A handwritten signature in black ink that reads "Robert L. Borlick". The signature is written in a cursive style with a large, stylized 'R' and 'B'.

Robert L. Borlick
Senior Energy Advisor
Borlick Energy Consultancy
Washington, D.C.
202 256 2633
rborlick@borlick.com

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